

Students:

- Describe what is known through archeological studies of the early physical and cultural development of mankind from the Paleolithic Era to the agricultural revolution.
- Analyze the geographic, political, economic, religious, and social structures of the early civilizations of Mesopotamia, Egypt, and Kush.
- Analyze the geographic, political, economic, religious, and social structures of the early civilizations of the Ancient Hebrews.
- Analyze the geographic, political, economic, religious and social structures of the early civilization of Ancient Greece.
- Analyze the geographic, political, economic, religious, and social structures of the early civilizations of India.
- Analyze the geographic, political, economic, religious, and social structures of the early civilizations of China.
- Analyze the geographic, political, economic, religious, and social structures in the development of Rome.

Mathematics

By the end of grade six, students have mastered the four arithmetic operations with whole numbers, positive fractions, positive decimals, and positive and negative integers; they accurately compute and solve problems. They apply their knowledge to statistics and probability. Students understand the concepts of mean, median, and mode of data sets and how to calculate the range. They analyze data and sampling processes for possible bias and misleading conclusions; they use addition and multiplication of fractions routinely to calculate the probabilities for compound events. Students conceptually understand and work with ratios and proportions; they compute percentages (e.g., tax, tips, interest). Students know about π and the formulas for the circumference and area of a circle. They use letters for numbers in formulas involving geometric shapes and in ratios to represent an unknown part of an expression. They solve one-step linear equations.

NUMBER SENSE

Students:

- Compare and order positive and negative fractions, decimals, and mixed numbers. Students solve problems involving fractions, ratios, proportions, and percentages.
- Calculate and solve problems involving addition, subtraction, multiplication, and division.

ALGEBRA AND FUNCTIONS

Students:

- Write verbal expressions and sentences as algebraic expressions and equations; they evaluate algebraic expressions, solve simple linear equations, and graph and interpret their results.
- Analyze and use tables, graphs, and rules to solve problems involving rates and proportions.
- Investigate geometric patterns and describe them algebraically.

MEASUREMENT AND GEOMETRY

Students:

- Deepen their understanding of the measurement of plane and solid shapes and use this understanding to solve problems.
- Identify and describe the properties of two-dimensional figures.

STATISTICS, DATA ANALYSIS, AND PROBABILITY

Students:

- Compute and analyze statistical measurements for data sets.
- Use data samples of a population and describe the characteristics and limitations of the samples.
- Determine theoretical and experimental probabilities and use these to make predictions about events.

MATHEMATICAL REASONING

Students:

- Make decisions about how to approach problems.
- Use strategies, skills, and concepts in finding solutions.
- Move beyond a particular problem by generalizing to other situations.

Science

FOCUS ON EARTH SCIENCE

Plate Tectonics and Earth’s Structure

- Plate tectonics explains important features of Earth’s surface and major geologic events.

Shaping of the Earth’s Surface

- Topography is reshaped by weathering of rock and soil and by the transportation and deposition of sediment.

Heat (Thermal Energy) (Physical Science)

- Heat moves in a predictable flow from warmer objects to cooler objects until all the objects are at the same temperature.

Energy in the Earth System

- Many phenomena on Earth’s surface are affected by the transfer of energy through radiation and convection currents.

Ecology (Life Science)

- Organisms in ecosystems exchange energy and nutrients among themselves and with the environment.

Resources

- Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation.

Investigation and Experimentation

- Scientific progress is made by asking meaningful questions and conducting careful investigations. To understand this concept and to address the content of the other three strands, students should develop their own questions and perform investigations.

GRADE SIX

The California Content Standards for Grade Six

CALIFORNIA DEPARTMENT OF EDUCATION

2000

Dear Parent/Guardian,

Well-communicated standards provide you with the information you need to have a better understanding of what your child is to learn in a specific grade level and in a specific subject. Your knowledge of the standards will help you frame your questions for parent-teacher conferences and counselor conferences; select reading and writing materials for the home; and shape your visits to public libraries and other places of interest.

narrative and expository text (e.g., classic and contemporary literature, magazines, newspapers, online information). In grade six, students continue to make progress toward this goal.

Literary Response and Analysis

- Students read and respond to historically or culturally significant works of literature that reflect and enhance their studies of history and social science. They clarify the ideas and connect them to other literary works. The selections in *Recommended Readings in Literature, Kindergarten Through Grade Eight* illustrate the quality and complexity of the materials to be read by students.

WRITING

Writing Strategies

- Students write clear, coherent, and focused essays. The writing exhibits students’ awareness of the audience and purpose. Essays contain formal introductions, supporting evidence, and conclusions. Students progress through the stages of the writing process as needed.

Writing Applications (Genres and Their Characteristics)

- Students write narrative, expository, persuasive, and descriptive texts of at least 500 to 700 words in each genre. Student writing demonstrates a command of standard American English and the research, organizational, and drafting strategies outlined in Writing Standard 1.0.

WRITTEN AND ORAL ENGLISH LANGUAGE CONVENTIONS

- Students write and speak with a command of standard English conventions appropriate to this grade level.

LISTENING AND SPEAKING

Listening and Speaking Strategies

- Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Speaking Applications (Genres and Their Characteristics)

- Students deliver well-organized formal presentations employing traditional rhetorical strategies (e.g., narration, exposition, persuasion, description). Student speaking demonstrates a command of standard American English and the organizational and delivery strategies outlined in Listening and Speaking Standard 1.0.

History–Social Science

The intellectual skills noted below are to be learned through, and applied to, content standards for grades six through eight. They are to be assessed *only in conjunction with* the content standards in grades six through eight.

In addition to the standards for grades six through eight, students demonstrate the following intellectual reasoning, reflection, and research skills:

CHRONOLOGICAL AND SPATIAL THINKING

Students:

- Explain how major events are related to each other in time.
- Construct various time lines of key events, people, and periods of the historical era they are studying.
- Use a variety of maps and documents to identify physical and cultural features of neighborhoods, cities, states, and countries and to explain the historical migration of people, expansion and disintegration of empires, and the growth of economic systems.

RESEARCH, EVIDENCE, AND POINT OF VIEW

Students:

- Frame questions that can be answered by historical study and research.
- Distinguish fact from opinion in historical narratives and stories.
- Distinguish relevant from irrelevant information, essential from incidental information, and verifiable from unverifiable information in historical narratives and stories.

- Detect the different historical points of view on historical events and determine the context in which the historical statements were made (the questions asked, sources used, author’s perspectives).

HISTORICAL INTERPRETATION

Students:

- Explain the central issues and problems of the past, placing people and events in a matrix of time and place.
- Understand and distinguish cause, effect, sequence, and correlation in historical events, including the long- and short-term causal relations.
- Explain the sources of historical continuity and how the combination of ideas and events explains the emergence of new patterns.
- Recognize the role of chance, oversight, and error in history.
- Recognize that interpretations of history are subject to change as new information is uncovered.
- Interpret basic indicators of economic performance and conduct cost/benefit analyses of economic and political issues.

World History and Geography: Ancient Civilizations

Students in grade six expand their understanding of history by studying the people and events that ushered in the dawn of the major Western and non-Western ancient civilizations. Geography is of special significance in the development of the human story. Continued emphasis is placed on the everyday lives, problems, and accomplishments of people, their role in developing social, economic, and political structures, as well as in establishing and spreading ideas that helped transform the world forever. Students develop higher levels of critical thinking by considering why civilizations developed, where and when they did, why they became dominant, and why they declined. Students analyze the interactions among the various cultures, emphasizing their enduring contributions and the link, despite time, between the contemporary and ancient worlds.

GRADE SIX

English–Language Arts

READING

Word Analysis, Fluency, and Systematic Vocabulary Development

- Students use their knowledge of word origins and word relationships, as well as historical and literary context clues, to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.

Reading Comprehension (Focus on Informational Materials)

- Students read and understand grade-level-appropriate material. They describe and connect the essential ideas, arguments, and perspectives of the text by using their knowledge of text structure, organization, and purpose. The selections in *Recommended Readings in Literature, Kindergarten Through Grade Eight* illustrate the quality and complexity of the materials to be read by students. In addition, by grade eight, students read one million words annually on their own, including a good representation of grade-level-appropriate